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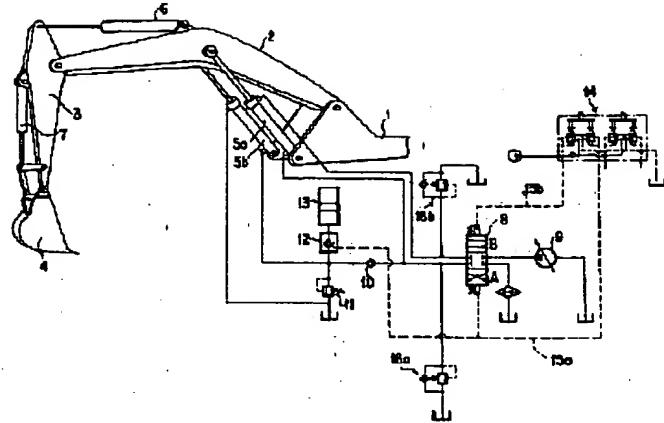
APPLICATION DATE : 13-12-91
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APPLICANT : KOMATSU LTD;

INVENTOR : NISHIMURA SATORU;

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TITLE : POSITION ENERGY COLLECTING
DEVICE FOR ASCENDING OR
DESCENDING WORKING MACHINE



ABSTRACT : PURPOSE: To simplify the mechanism by operating an ascending or descending operation valve for descending, to move a boom cylinder to be shortened, and by accumulating bottom side pressure oil in a pressure accumulator, to use the oil for the following ascending operation.

CONSTITUTION: The bottom side and rod side of a boom cylinder 5a are connected to a hydraulic pump 9 via an operation valve 8, and the cylinder is set to be freely operated to be moved up or down. After that, the bottom side of a boom cylinder 5b is connected to the bottom side of the cylinder 5a via a check valve 10, and a rod side is released to a tank. After that, a section between the bottom side of the cylinder 5b and the valve 10 is connected to a pressure accumulator 13 via a pilot check valve 12, and a boom lifting side pilot circuit 15a is connected to the valve 12. Then, the cylinder 5a is shortened, and a boom is operated to be moved down, and the cylinder 5b is shortened, and bottom side pressure oil is accumulated in the pressure accumulator 13. Besides, at the time of operating the boom to be moved up, with the pressure of the circuit 15a, the valve 12 is opened, and the pressure oil of the pressure accumulator 13 is fed to be added to the bottom side of the cylinder 5b. As a result, by the boom cylinder, position energy can be collected.

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